

What is claimed is:

1. A base transceiver station in a mobile communication system, comprising:

5 a GPS time frequency unit for outputting a synchronized time which is received from at least one GPS satellite and frequency information;

a BTS main processing unit for generating a control command to control one BTS;

10 an ATM interface unit for interfacing with an asynchronous mode communication device;

a packet routing unit for providing routing information used for setting path of packet data;

15 a multi-rate channel unit for processing an inter-channel communication, each channel having a different data rate;

20 a signal transformation unit for transforming and modulation/demodulation of an input signal; and

a wireless unit for wireless communication with a mobile station.

2. The base transceiver station as recited in claim 1, wherein the wireless unit includes three transmitting frequency units and three receiving frequency units.

25 3. The base transceiver station as recited in claim 1, wherein the signal transformation unit includes an analog up converter, an analog down converter, a digital up converter

and a digital down converter.

4. The base transceiver station as recited in claim 1,
wherein the multi-rate channel unit includes a transmitting
5 integrated circuit for processing an input signal, a receiving
integrated circuit for processing an output signal, a HDLC
controller for controlling a HDLC communication and a
controlling software block for performing a pre-reserved
program and transmit it to each device.